

**CLAIMS**

1. A papermaking furnish comprising a combination of a flocculating solventless cationic polymer retention aid with phenolic resin and polyethylene oxide as a retention system for retaining fines, fillers and other papermaking chemicals in the paper sheet, characterized in that the flocculating solventless cationic polymer retention aid is a liquid, aqueous, solventless dispersion of a cationic polymer, without any oil-phase, having viscosities in water at 1% of between 2000 and 20,000 mPa sec.
- 10 2. A papermaking furnish according to claim 1, in which said dispersion has a charge density of between 20 and 75 mole % and a solids content of between 2 and 70 wt%.
- 15 3. A papermaking furnish according to claims 1 or 2, in which the amount of the solventless cationic retention aid is 0.05 kg/ton to 10 kg/ton based on the weight of dry fibers; the amount of phenolic resin is 0.05 kg/ton to 10 kg/ton of actual resin in as supplied material per ton of dry fibers; and the amount of polyethylene oxide is 5 g/ton to 500 g/ton based on the weight of dry fibers.
- 20 4. A papermaking furnish according to any one of claims 1 to 3, in which the ratio of the solventless cationic retention aid to the phenolic resin is from 200:1 to 1:200; the ratio of the phenolic resin to polyethylene oxide is from 100:1 to 1:100 and the ratio of the solventless cationic polymer retention aid to polyethylene oxide is from 1:2000 to 2000:1.

5. A method of increasing retention rate and/or drainage in a papermaking furnish comprising adding to the furnish an effective amount of a liquid, aqueous solventless cationic polymer flocculating retention aid having viscosities in water at 1% of between 2000 and 20,000 mPa sec in combination with phenolic resin and polyethylene oxide.
6. A method according to claim 5, in which the solventless cationic polymer retention aid is added to the furnish together with the phenolic resin at the same point of addition.
7. A method according to claim 5, in which the solventless cationic polymer retention aid is added to the furnish separately from the phenolic resin at a different point of addition.
8. A method according to claims 5, 6 or 7 in which the solventless cationic polymer retention aid and the phenolic resin are added to the furnish before or after the polyethylene oxide addition.
9. A method according to claim 7, in which the solventless cationic polymer retention aid is added last, after the phenolic resin and polyethylene addition and after the last point of shear.
10. A method according to claim 5, further comprising adding a filler to the furnish and pretreating said filler with the solventless cationic polymer retention aid.
- 20 11. A method as claimed in claim 10, in which the pretreated filler is dosed into the furnish before the last point of shear and before addition of the polyethylene oxide.